



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,282	09/08/2003	Eytan Suchard	063170.2573 (19990001-DIV)	1387
5073	7590	08/12/2004	EXAMINER	
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			MARIAM, DANIEL G	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/657,282	Applicant(s) SUCHARD ET AL.	
	Examiner DANIEL G MARIAM	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/08/2003</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This application appears to be a division of Application No. 09/482,075, filed January 13, 2000, which is now U.S. Patent Number 6,661,908, issued on December 9, 2003. A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in an earlier or parent application is known as a divisional application or "division." The divisional application should set forth the portion of the earlier disclosure that is germane to the invention as claimed in the divisional application.
2. The claims (independent claims 1, 5, 9, 13) in the current application ('282), which are now amended, do not correspond to the claims that have been restricted in the parent application ('075), and thus 35 U.S.C. 121 does not apply.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 5, 9 and 13 are rejected under the judicially created doctrine of double patenting over claims 1, 20, 23 and 26 respectively of U. S. Patent No. 6,661,908 since the claims, if allowed, would improperly extend the "right to exclude" already granted in

Art Unit: 2621

the patent. Since claims 2-4, 6-8, and 10-12 depend on claims 1, 5, and 9 respectively, they are also rejected under the judicially created doctrine of double patenting for the same reason set forth above for claims 1, 5, and 9.

5. The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: sampling a signature and obtaining raw data representative thereof using a recursive sampling process; translating the raw data into high dimension vectors; and extract, via an unsupervised neural network, high order principal components of the high dimension vectors by cumulative ortho-normalization. The scope of the claimed invention is fully disclosed in the '908 patent, and the claims of the application are generic compared to the patented claims, which is directed to a specific species.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2621

7. Claims 1, 5, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minot, et al. (5,568,591).

With regard to claim 9, Minot, et al. a computer for electronically learning a signature (See Figs. 1 and 5), comprising: memory (See for example, items 11 and 12, in Fig. 5); and one or more processors (See for example, item 24, in Fig. 5) collectively operable to: sample a signature and obtaining raw data representative thereof using a recursive sampling process, translate the raw data into high dimension vectors, i.e., forming the coordinates of a vector in a hyperspace (col. 4, lines 15-16; col. 5, lines 14-20; col. 7, lines 30-63; col. 8, lines 56-60; and col. 9, lines 32-35); and extract, via an unsupervised neural network, i.e., K-NN, high order principal components, i.e., PCA and/or main components, of the high dimension vectors by cumulative orthogonalization, i.e., cumulative balance (col. 7, line 64 – col. 8, line 55; col. 9, lines 36-44; and Figs. 2 and 3B). The use of a recursive (or iterative) sampling process is extremely well known as evidenced by Minot, et al. (See for example, col. 8, lines 59-60). Therefore, it would have been obvious to one having ordinary skill in the art to use an extremely well known recursive sampling process to sample and learn a class of signatures.

Claims 5 and 13 are rejected the same as claim 9. Thus, argument analogous to that presented above for claim 9 is equally applicable to claims 5 and 13.

Claim 1 is rejected the same as claim 9 except claim 1 is a method claim. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 1.


Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. A Publication to Tayel, et al. "Winner -Take-All Neural Network for Visual Handwritten Character Recognition".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL MIRIAM
PRIMARY EXAMINER
August 9, 2004